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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/068,243	02/06/2002	Bryan Spiess	A490-003	8499
Mi K. Kim	7590	01/30/2009	EXAMINER	
20 Alexander Way	AFZALL SARANG			
Duxbury, MA 02332	ART UNIT		PAPER NUMBER	
	3726			
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	01/30/2009	PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/068,243

**Applicant(s)**

SPIESS, BRYAN

**Examiner**

SARANG AFZALI

**Art Unit**

3726

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on RCE filed 1/8/2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 14-33 is/are pending in the application.
- 4a) Of the above claim(s) 28 and 29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 14-27 and 30-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB08)
- Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/8/2009 has been entered.

### ***Specification***

2. The disclosure is objected to because of the following informalities:  
Specification, page 5, line 11 and page 6, line 14, the phrase "polyvynilidene fluoride" should read - - polyvinylidene fluoride - - .  
Appropriate correction is required.

### ***Claim Objections***

3. Claims objected to because of the following informalities:  
Claims 16 and 32, lines 3, the phrase "polyvynilidene fluoride" should read - - polyvinylidene fluoride - - . Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 14, 15, 18-23, 25, 27, 30 and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Marcus et al. (US 5,217,099).

6. As applied to claims 14 & 15, Marcus et al. teach a transporting roller used in a conveyor system (Abstract, line 1-18) comprising:

- (a) a single piece component roller consisting essentially of a cylindrical body (10, Figs. 1 & 2), said body having a length and a diameter; and
- (b) an aperture (14) extending longitudinally along and through the center of said body, wherein said body consists essentially of a polymer (PVC).

Regarding the limitation pertaining to the "an aircraft roller", a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. As such, the single piece polymer roller of Marcus et al. is capable of being used as an aircraft roller.

Note that Marcus et al. (Abstract, lines 16-18) teach that the central bore of the roller portion is dimensioned to provide a designated clearance around the shaft and as

such, it is clear that only the polymer body (10) of the roller is relied upon to carry the load.

7. As applied to claim 18, Marcus et al. teach that the ends of the roller (2) are shaped to provide a shoulder (the machined recessed at the ends, Fig. 2).

8. As applied to claims 19-22, Marcus et al. teach the invention cited including the physical properties of the polymeric material.

Regarding the limitations "impact strength of at least 0.5 (ft. lbs./inch)", "flexural strength of at least 20 psi", "compressibility strength of at least 20 psi and 200 psi", it is noted that Marcus et al. inherently teach these physical properties. Marcus et al. teach that the polymer used in the roller is made from "PVC or polyvinyl chloride" (see col. 3, lines 19-23). On page 5, second full paragraph of applicant's specification, applicant describes that suitable polymers include polyv[y]n[i]l[y]lidene fluoride among with other polymers. Therefore, since both the prior art and the applicant uses similar polyvinyl compositions, it is inherent that Marcus et al. inherently teach the claimed physical properties of the polymer. Applicant has not provided the physical properties of each of the polymer materials described in the specification on page 5, second full paragraph, therefore, it is understood that all of the described polymer materials on page 5, second full paragraph of applicant's specification meet the claimed "impact strength of at least 0.5 (ft. lbs.)/inch, a flexural strength of at least 20 psi, and a compressibility strength of at least 20 psi & 200 psi", with "PVC" as taught by Marcus et al. being among the

polymer materials. Therefore, Marcus et al. also inherently teach the limitations of claims 19-22.

9. As applied to claims 23 and 25, Marcus et al. teach the invention cited including the claimed ranges for the diameter (2.25", col. 3, line 9) of the body of roller (within the claimed ranges in claims 23 & 25).

10. As applied to claim 27, Marcus et al. teach the invention cited including the roller used in a transport conveyor system (Fig. 3).

11. As applied to claims 30 and 31, note that the Applicant is claiming a product in a product-by-process claim (a roller made by steps a-c) and as such, the patentability of product does not depend on its method of production. *In re Thorpe*, 777 F.2d 695, 697, 227 USPQ 964, 966 (Fed. Cir. 1985) (citing *In re Pilkington*, 411 F.2d 1345, 1348, 162 USPQ 145, 147 (CCPA 1969)). If a product in a product-by-process claim is the same as or obvious from a product in the prior art, the claim is unpatentable even though the prior product is made by a different process. *Id.* citing *In re Marosi*, 710 F.2d 799, 803, 218 USPQ 289, 292-93 (Fed. Cir. 1983); *Johnson & Johnson v. W.L. Gore*, 436 F. Supp. 704, 726, 195 USPQ 487, 506 (D. Del. 1977); see also *In re Fessmann*, 489 F.2d 742, 744, 180 USPQ 324, 326 (CCPA 1974).

The instant invention is not directed to a method of making the roller, but to the roller itself which is a product. The final product is structurally the same as Marcus et al. as discussed in rejection of claim 14, above.

***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 16, 17, 19-22 (in alternative), 24, 26, 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marcus et al. (US 5,217,099).

14. As applied to claims 16-17 and 32-33, Marcus et al. teach the invention cited including roller body made of a polymer but do not explicitly teach the claimed group of polymer (claim 16) and the claimed acetyl copolymer (claim 17).

At the time of the invention, it would have been an obvious matter of design choice to a person of ordinary skill in the art, to have used the claimed polymer because applicant has not disclosed that the claimed polymers provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected applicant's invention to perform equally as well with the PVC (polyvinyl chloride) as taught by Marcus et al. or any single polymer of the claimed group of polymers or acetyl copolymer as claimed, because either type of polymer perform the same function of providing a roller surface that has the desired

compressibility and strength. Furthermore, in applicant's specification, at page 5, lines 8-13, there is a listing of different polymers and all are suitable for the rollers. There is no indication that one polymer is better than another.

15. As applied to claims 19-22, Marcus et al. teach the invention cited including the physical properties of the polymeric material. In alternative, if the applicant does not agree that Marcus et al. teach the claimed strength properties, then at the time of the invention, it would have been an obvious matter of design choice to a person of ordinary skill in the art, to have used the claimed physical properties of "impact strength of at least 0.5 (ft. lbs./inch)", "flexural strength of at least 20 psi", "compressibility strength of at least 20 psi and 200 psi", for the roller body because applicant has not disclosed that the claimed properties provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected applicant's invention to perform equally as well with the roller body properties taught by Marcus et al. or roller body properties as claimed, because either strength properties of the roller body perform the same function of providing a desired roller surface for holding and carrying loads.

Furthermore, official notice is taken that it was well known to a person of ordinary skill in the art, at the time of the invention, to have used the claimed physical properties (strengths), in order to provide a roller having the desired strength to carry desired loads.



16. As applied to claims 24 and 26, Marcus et al. teach the invention cited with the exception of the claimed length of the roller body.

At the time of the invention, it would have been an obvious matter of design choice to a person of ordinary skill in the art, to have used the claimed lengths for the roller body because applicant has not disclosed that the claimed lengths provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected applicant's invention to perform equally as well with the roller body length taught by Marcus et al. or roller body lengths as claimed, because either length of the roller body performs the same function of providing a desired roller surface for holding and carrying loads. Furthermore, in applicant's specification, at page 4, lines 17-21, there is a listing of different lengths suitable for the rollers. There is no indication that one certain length is better than another.

17. As applied to claims 32-33, note that the Applicant is claiming a product in a product-by-process claim (a roller made of polymer from the claimed group of polymers and acetyl copolymer made by steps a-c of claim 30) and as such, the patentability of product does not depend on its method of production. *In re Thorpe*, 777 F.2d 695, 697, 227 USPQ 964, 966 (Fed. Cir. 1985) (citing *In re Pilkington*, 411 F.2d 1345, 1348, 162 USPQ 145, 147 (CCPA 1969)). If a product in a product-by-process claim is the same as or obvious from a product in the prior art, the claim is unpatentable even though the prior product is made by a different process. *Id.* citing *In re Marosi*, 710 F.2d 799, 803,

218 USPQ 289, 292-93 (Fed. Cir. 1983); *Johnson & Johnson v. W.L. Gore*, 436 F. Supp. 704, 726, 195 USPQ 487, 506 (D. Del. 1977); see also *In re Fessmann*, 489 F.2d 742, 744, 180 USPQ 324, 326 (CCPA 1974).

The instant invention is not directed to a method of making the roller, but to the roller itself which is a product. The final product is structurally the same as Marcus et al. as discussed in rejection of claims 16 & 17, above.

### ***Response to Arguments***

18. Applicant's amendment to specification is accepted and as such the objection to specification for informalities has been withdrawn.

### ***Conclusion***

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please note that there are numerous prior art references that read on the limitations of independent claim 14 such as roller 13 (Fig. 4A) in Ando et al. (US 5,893,821); roller 1 (Figs. 1 & 2) in Sparkes et al. (US 2,258,268); roller 3 (Figs. 1 & 2) in Hill (US 3,293,728); roller 2 (Figs. 1 & 2) in Wolever et al. (US 1,305,330); and roller 20 (Fig. 1) in Couillard (US 6,113,059), each being capable of being used as an aircraft roller.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SARANG AFZALI whose telephone number is (571)272-8412. The examiner can normally be reached on 7:00-3:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bryant can be reached on 571-272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sarang Afzali/  
Examiner, Art Unit 3726  
1/27/2009

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